

C L A I M S

1. Toothed belt (1) for use in contact with oil and comprising a body (2) and a number of teeth (4) extending from at least one first surface of said body; said teeth being coated by a first fabric (5), said fabric (5) being externally coated with a resistant layer (8), in which:
said resistant layer (8) comprises a fluorinated plastomer, a first elastomeric material and a vulcanisation agent;
said fluorinated plastomer is present in said resistant layer (8) in a larger quantity than said first elastomeric material;
said body comprises a compound based on a second elastomeric material formed of a copolymer obtained from a dienic monomer and a monomer containing nitrile groups;
said nitrile groups are in percentage between 33% and 49% in weight with respect to the weight of said copolymer.
2. Toothed belt according to claim 1, characterised in that said nitrile groups are in percentage 39% in weight.
3. Toothed belt according to any of the preceding claims, characterised in that said second elastomeric material comprises hydrogenated butadiene acrylonitrile.
4. Toothed belt according to claim 3, characterised in that said hydrogenated butadiene acrylonitrile is modified with a zinc salt of polymethacrylic acid.
5. Toothed belt according to any of the preceding claims, characterised in that said resistant layer (8) comprises said fluorinated plastomer in a quantity in weight of between 101 and 150 parts in weight with respect to said elastomeric material.
6. Toothed belt according to any of the preceding claims, characterised in that said fluorinated plastomer is polytetrafluoroethylene.

7. Toothed belt according to any of the preceding claims, characterised in that the back (6) of said belt is coated by a second fabric (7).

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8. Toothed belt according to any of the preceding claims, characterised in that said second fabric (7) is coated on the outside by a second resistant layer (8).

10 9. Toothed belt according to any of the preceding claims, characterised in that said second resistant layer is equal to said first resistant layer.

15 10. Toothed belt according to any of the preceding claims, characterised in that said elastomeric material comprises fibres.

20 11. Toothed belt according to claim 10, characterised in that said fibres are present in a quantity in weight of between 0.5 and 15% with respect to said elastomeric material.

25 12. Toothed belt according to any of the preceding claims, characterised in that it comprises resistant inserts (3) chosen from the group consisting of aramidic fibres, PBO and carbon fibres.

30 13. Toothed belt according to claim 12, characterised in that said resistant inserts have been treated with an RFL comprising an oil-resistant latex.

35 14. Toothed belt according to claim 13, characterised in that said latex comprises an elastomeric material formed of a copolymer obtained from a dienic monomer and a monomer containing nitrile groups.

15. Toothed belt according to any of the preceding claims,

characterised in that it comprises between the teeth (4) and said back (6) sides treated with a polymer resistant to expansion.

5 16. Timing control system for a motor vehicle comprising at least one drive pulley, one driven pulley and one toothed belt (1) for use in contact with oil and comprising a body (2) and a number of teeth (4) extending from at least one surface of said body; said teeth being coated by a fabric (5), said
10 fabric (5) being externally coated by a resistant layer (8), in which:

said resistant layer (8) comprises a fluorinated plastomer, a first elastomeric material and a vulcanisation agent;
said fluorinated plastomer is present in said resistant layer
15 (8) in a larger quantity than said first elastomeric material;
said body comprises a compound based on a second elastomeric material formed of a copolymer obtained from a dienic monomer and a monomer containing nitrile groups;
said nitrile groups are in percentage between 33% and 49% in
20 weight with respect to the weight of said copolymer.

17. Control system according to claim 16, characterised in that said nitrile groups are in percentage 39% in weight.

25 18. Control system according to claims 16 or 17, characterised in that said second elastomeric material comprises hydrogenated butadiene acrylonitrile.

30 19. Control system according to claim 18, characterised in that said hydrogenated butadiene acrylonitrile is modified with a zinc salt of polymethacrylic acid.

20. Control system according to any of the claims from 16 to 19, characterised in that said resistant layer (8) comprises
35 said fluorinated plastomer in a quantity in weight of between 101 and 150 parts in weight with respect to said elastomeric

material.

21. Control system according to any of the claims from 16 to 20, characterised in that said fluorinated plastomer is polytetrafluoroethylene.

22. Control system according to any of the claims from 16 to 21, characterised in that the back (6) of said belt is coated by a second fabric (7).

23. Control system according to claim 22, characterised in that said second fabric (7) is externally coated by a second resistant layer.

24. Control system according to claim 23, characterised in that said second resistant layer is equal to said first resistant layer.

25. Control system according to any of the claims from 16 to 24, characterised in that said elastomeric material comprises fibres.

26. Control system according to claim 25, characterised in that said fibres are present in a quantity in weight of between 0.5 and 15% with respect to said elastomeric material.

27. Control system according to any of the claims from 16 to 26, characterised in that it comprises resistant inserts (3) chosen from the group consisting of aramidic fibres, PBO and carbon fibres.

28. Control system according to claim 27, characterised in that said resistant inserts have been treated with an RFL comprising an oil-resistant latex.

29. Control system according to claim 28, characterised in

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that said latex comprises an elastomeric material formed of a copolymer obtained from a dienic monomer and a monomer containing nitrile groups.

5 30. Control system according to any of the claims from 16 to 29, characterised in that it comprises, between the teeth (4) and said back (6), sides (10) treated with a polymer resistant to expansion.

10 31. Control system according to any of the claims from 16 to 30, characterised in that it comprises a sliding block tightener (34) or a sliding block (35).